



ÉCOLE
CENTRALE LYON

ASSISTANT PROFESSOR IN ACOUSTICS

Starting date: 01-09-2024

Department of Fluid Mechanics, Acoustics and Energetics **Fluid Mechanics and Acoustics Laboratory**

Key words: Physical acoustics, Acoustics in fluids

Information

Reference:

Corps: MCF

Section CNU: 60

Starting date: 01.09.2024

Location: Écully campus

Teaching profile

The recruited Lecturer will be integrated into the "Acoustics" teaching team within the "Fluid Mechanics, Acoustics, Energetics" (MFAE) department and will actively participate in the definition and operation of training. He (She) will take part in the courses, tutorials and practical work in all lessons relating to the themes of the department, within the engineering courses (generalist and energy specialty), of the first year (bac level +3) to the final year (bac+5 level), as well as in the establishment's masters.

The recruited person will participate in the reconfiguration of the school's Acoustics training offer, required by the renewal of the team, with contributions expected in interaction with other disciplines. The themes currently covered by the team (physical acoustics, aeroacoustics, perception, active control, musical acoustics, signal processing, vibro-acoustics) could be broadened to include recent applications, for example the transition to digital around data (connected), virtual acoustics or media.

More generally, the recruited Lecturer is expected to commit to the initial and continuing training, in courses in French or international courses in English. Involvement is also required in the cross-disciplinary courses of the School's engineering training, in particular multidisciplinary project activities, supervision of interns or apprentices, defenses, etc.

Research profile

The recruited Lecturer will carry out his (her) research activities within the "Acoustics" team of the Fluid Mechanics and Acoustics Laboratory (LMFA, UMR 5509) on the Ecully campus of "Ecole Centrale de Lyon". The team has substantial and varied experimental facilities: wind tunnels and anechoic chambers, reverberation rooms, listening room, benches for modal decomposition and synthesis, characterization benches for materials and implements original large-scale measurement methods using mechanical and optical sensors.

The person recruited will present the profile of an experimenter in acoustics ready to get involved in research work in acoustics in fluids. He (She) will strengthen and develop the team's activities for capture (microphonic or acousto-optic antennas), characterization (beamforming, imaging, modal decomposition), or even synthesis and active control (real-time multichannel signal processing) of sound fields.

The applications of these experimental research activities could relate to aeroacoustics, room acoustics, auralization, synthesis of fields for measurement (turbulent boundary layer, characterization of materials) or sound immersion, within the framework of perception studies for applications in environment and health.

These fields of application are very promising with regard to regional and national socio-economic stakeholders, and must allow the recruited person to develop collaborations through national and European research programs and industrial contracts.

In the event that the teacher-researcher would be required to carry out all or part of his research activity in the ZRR, his appointment will be conditional on the authorization of the Defense Security Officer.

To apply

GALAXIE:

<https://www.galaxie.enseignementsup-recherche.gouv.fr/ensup/candidats.html>

Teaching:

- Didier DRAGNA, didier.dragna@ec-lyon.fr
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Research:

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